



CAPRISA

CENTRE FOR THE AIDS PROGRAMME OF  
RESEARCH IN SOUTH AFRICA



CAPRISA is a UNAIDS  
Collaborating Centre for  
HIV Prevention Research

# Integrating HIV and TB care in a Primary Health Care Setting in Durban, KZN

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# Rationale for Integrated HIV and TB care

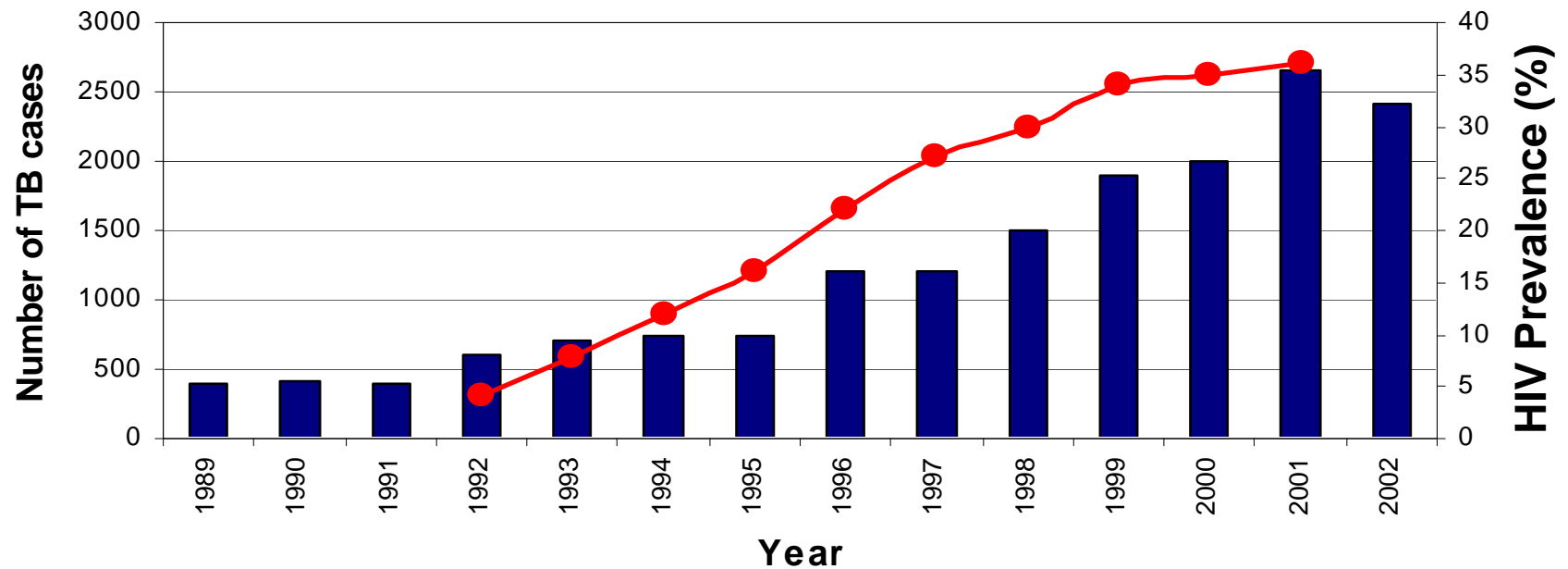
- Explosive increase in HIV prevalence among antenatal clinic attendees:  
KZN: 36.5 (2002) - 40.7 (2004),  
South Africa: 26.5 (2002) - 29.5 (2004).
- Tuberculosis (TB) is the commonest serious infectious complication associated with HIV infection in sub-Saharan Africa
- dramatic increase in the incidence of TB, fuelled by HIV epidemic
- TB is also the commonest cause of mortality among patients with HIV in developing countries

- case fatality rates of approx. 40% per year regardless of effective TB chemotherapy in co-infected patients,
- Equipoise on whether or not to integrate TB treatment and ART
- The high rates of HIV-TB co-infection provides an efficient mechanism for identifying individuals with HIV who are likely to benefit from ART,

# Annual TB Burden for South Africa with Proportion Co-Infected with HIV

Province	Total TB Cases	Proportion HIV+
KwaZulu-Natal	65,654	64.6%
Gauteng	45,598	44.8%
Western Cape	34,211	31.6%
Eastern Cape	56,495	40.0%
Northern Province	23,338	36.3%
Mpumulanga	15,657	59.1%
North West	15,549	45.5%
Free State	14,654	51.7%
Northern Cape	4,649	33.2%
South Africa	273,365	47.6%

# Tuberculosis caseload and antenatal HIV prevalence in Hlabisa district



Source: Hlabisa Hospital Records

# Potential Synergy between HIV and TB care

- established, acceptable and familiar infrastructure with secure access to medication
- Trained staff that ensure completion of and adherence to treatment
- DOT principle is a means of enhancing adherence
- adherence to TB medications is fundamental to treatment success

- Synergy between TB DOT and HIV ART:
  - adherence to therapy and
  - monitoring for side effects, toxicities
  - efficacy
  
- Anecdotal reported therapeutic success with co-administration for both HIV and TB.

# Challenges associated with HIV-TB Rx co-administration

- Drug interactions, viz. rifampicin and NNRTI and PI's
- Immune Reconstitution Syndrome (IRIS)
- Potential additive toxicity and side effects
- Lack of evidence based guidelines on the optimal time to initiate ART in TB patients

# HIV-TB Service Integration: Experience of the CAPRISA eThekweni Team

# Description of the Team

## **TB clinic staff:**

- Nurses, doctors, lab personnel, admin staff, :
  - Provide TB services
  - assist with identification and referral of potential patients into ART programme
  - assist with the detection of sick patients, defaulters

## **CAPRISA Staff:**

- Counselors, Nurses, Clinicians, a site Manager, a programme co-ordinator provide HIV related services incl.:
  - HIV VCT,
  - counseling services incl adherence support and education
  - HIV care, OI detection, management, and referral if necessary
  - Provision of ART
  - Clinical and laboratory monitoring of disease progression, response ART as well as toxicity





# What makes HIV -TB Rx integration possible?

- High prevalence of HIV-TB co-infection of approximately 70% at the PCZCDC.
- Agreement between key stakeholders on importance of ARV rollout in this target population i.e. City MO, clinic management, TB clinic staff etc:
  - reluctance among clinic staff
  - Refusal of ownership of problem by clinic staff
  - ARV Rx “new concept”, therefore fear
  - Potential of burdening an already over-burdened service
- On site VCT for HIV:
  - Poor uptake of municipality provided VCT
  - VCT scale up required, counseling and voluntary testing vs VCT
  - Implementation of broad-based health education sessions with TB patients to enhance uptake of CT

- Availability of on site: adherence support, education and ongoing counseling
- Staff trained for early recognition of toxicities and failure
  - Project staff had almost no experience with ARV's:
    - intensive training done at programme commencement
    - continuous medical education thereafter
  - Specific training sessions included clinic staff incl. TB clinicians and DOT nurses
- On site pharmacy: dispensing of ARV's and other drugs e.g. Co-trimoxazole, mycostatin, supplements etc

- Referral networks established with provincial ART rollout facilities as well as district and tertiary level facilities:
  - patient transitioning at end of programme
  - management of complicated patients

# Patient numbers

- Total no. referred for VCT(over 19 mo): 1384
- % HIV +ve: 64%
- Total no. in HIV-TB care(awaiting ART): 313
- Total on ART: 294
- No on dual TB and ART: 81
- No. initiated on ART during IP of TB therapy: 32

- Overall retention rate: 95.4%
- 3 deaths, all prior to ART initiation, AIDS related conditions
- 2 patients that needed ART regimen switch for Rx failure
- Approx. 30 single drug switches for treatment toxicities, majority of which was for peripheral neuropathy

# Common complications observed

- Drug toxicity: Peripheral Neuropathy, LFT abnormalities, Skin eruptions
- Suspected IRIS esp. in non-TB patients
- Other: ART Failure: Based on clinical, immunological and virological parameters

# Challenges

- Uptake of VCT: 2 diseases, denial, stigma
- Uptake of programme: deterioration prior to ART initiation, targeting ambulant patients only
- Maintaining high level of Rx adherence for both TB and ART

# Conclusion

- Synergy between HIV and TB Rx services is possible
- VCT among TB patients, entry point into the HIV care cycle
- Programme still in its infancy to conclude whether we should integrate TB and HIV care at a programmatic level

**" We can't fight AIDS unless we  
do much more to fight TB as  
well "**

**Nelson Mandela 15th International AIDS  
Conference, Bangkok, July 2004**

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